

L2 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1995:187187 CAPLUS  
 DN 122:25815  
 ED Entered STN: 12 Nov 1994  
 TI **Imidacloprid** - a new systemic insecticide.  
 AU Elbert, A.; Becker, B.; Hartwig, J.; Erdelen, C.  
 CS Geschäftsbereich Pflanzenschutz Entwicklung/Insektizide, Bayer AG,  
 Leverkusen, 5090, Germany  
 SO **Pflanzenschutz-Nachrichten** Bayer (German Edition) (1991),  
 44(2), 113-36  
 CODEN: PNBAT; ISSN: 0340-1723  
 PB Bayer AG  
 DT Journal  
 LA German  
 CC 5-4 (Agrochemical Bioregulators)  
 AB The biol. profile of **Imidacloprid** (I) was defined on the basis  
 of the results of exhaustive laboratory expts. and greenhouse trials. I is  
 extremely effective against sucking insects, such as rice leafhoppers,  
 aphids, thrips and mealybugs, and very effective against whitefly. It is  
 also effective against some species of biting insects, such as paddy stem  
 borers and Colorado beetle, but it has no effect on nematodes or spider  
 mites. At comparatively high doses it kills adult insects and has  
 ovicidal effects. I is a nicotinic acetylcholine receptor stimulator.  
 Its mechanism of action differs from that of conventional insecticides.  
 It therefore gives excellent control of all resistant populations  
 investigated hitherto. I has a pos. temperature coefficient After foliar  
 application, it has a good residual action, it is highly photostable and  
 it shows satisfactory resistance to rain. I is active after oral  
 ingestion and by direct contact, but it is not active in the vapor phase.  
 The LD95 after oral ingestion by *Myzus persicae* is .apprx.2  
 pg/aphid. After topical application it is .apprx.160 pg/aphid. It has  
 not been possible to demonstrate recovery of injured aphids, or  
 antifeeding effects. I has a faster action against aphids than  
 oxydemeton-Me. After foliar application, I shows good translaminar and  
 acropetal translocation, so it is also likely to provide effective control  
 of pests with a furtive lifestyle, and protect the parts of the plant  
 which regenerate after treatment. By virtue of its good contact action  
 and powerful systemic action after uptake through the root system, I can  
 be applied to soil and used as a seed dressing. It gives excellent  
 control of pests such as onion maggots, *Diabrotica*, wire worms, termites  
 and fire ants which live in the soil, and of insects such as aphids which  
 live above ground level. It has a good residual action after application  
 to the soil and when it is used as a seed dressing. The compatibility of  
 I with plants is good after use as a seed dressing, as a soil treatment  
 and after foliar application. By virtue of its biol. properties, I is  
 likely to have a wide range of uses for controlling economically important  
 pests of rice, cotton, cereals, maize, sugar beet, potatoes, vegetables,  
 citrus fruit, pome and stone fruit and other crops.  
 ST VVImidacloprid systemic insecticide  
 IT Insecticides  
 (Imidacloprid as systemic insecticide)  
 IT 138261-41-3, **Imidacloprid**  
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 ° (Imidacloprid as systemic insecticide)

L2 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1994:712564 CAPLUS  
 DN 121:312564  
 ED Entered STN: 24 Dec 1994  
 TI The molecular and crystal structure of **imidacloprid** (phase  
 2)  
 AU Born, L.

CS Zentrale Forschung, Bayer AG, Leverkusen, 5090, Germany  
 SO **Pflanzenschutz**-Nachrichten Bayer (German Edition) (1991),  
 44(2), 137-44  
 CODEN: PNBAT; ISSN: 0340-1723  
 PB Bayer AG  
 DT Journal  
 LA German  
 CC 75-8 (Crystallography and Liquid Crystals)  
 AB The mol. and crystal structure of **imidacloprid** (phase 2  
 ) were reported.  
 ST **imidacloprid** insecticide mol crystal structure; NTN 33893  
 insecticide mol crystal structure; mol crystal structure  
**imidacloprid** insecticide; polymorphism mol crystal structure  
**imidacloprid** insecticide  
 IT Crystal structure  
 Molecular structure  
 Polymorphism  
 (mol. and crystal structure of **imidacloprid** (phase 2  
 ))  
 IT 138261-41-3, **Imidacloprid**  
 RL: PRP (Properties)  
 (mol. and crystal structure of **imidacloprid** (phase 2  
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